REFERENCES 77

[88] J. Cabrera Arteaga, O. Floros, O. Vera Perez, B. Baudry, and M. Monperrus, "Crow: code diversification for webassembly," in *MADWeb*, *NDSS* 2021, 2021.

- [89] J. Cabrera Arteaga, "Artificial software diversification for webassembly," 2022. QC 20220909.
- [90] R. Sasnauskas, Y. Chen, P. Collingbourne, J. Ketema, G. Lup, J. Taneja, and J. Regehr, "Souper: A Synthesizing Superoptimizer," arXiv preprint 1711.04422, 2017.
- [91] J. Cabrera Arteaga, P. Laperdrix, M. Monperrus, and B. Baudry, "Multi-Variant Execution at the Edge," arXiv e-prints, p. arXiv:2108.08125, Aug. 2021.
- [92] J. Lettner, D. Song, T. Park, P. Larsen, S. Volckaert, and M. Franz, "Partisan: fast and flexible sanitization via run-time partitioning," in *International Symposium on Research in Attacks, Intrusions, and Defenses*, pp. 403–422, Springer, 2018.
- [93] B. G. Ryder, "Constructing the call graph of a program," *IEEE Transactions on Software Engineering*, no. 3, pp. 216–226, 1979.
- [94] J. Cabrera-Arteaga, N. Fitzgerald, M. Monperrus, and B. Baudry, "WASM-MUTATE: Fast and Effective Binary Diversification for WebAssembly," arXiv e-prints, p. arXiv:2309.07638, Sept. 2023.
- [95] M. Willsey, C. Nandi, Y. R. Wang, O. Flatt, Z. Tatlock, and P. Panchekha, "Egg: Fast and extensible equality saturation," *Proc. ACM Program. Lang.*, vol. 5, jan 2021.
- [96] "Stop a wasm compiler bug before it becomes a problem | fastly." https://www.fastly.com/blog/defense-in-depth-stopping-a-wasm-compiler-bug-before-it-became-a-problem, 2021.
- [97] D. Cao, R. Kunkel, C. Nandi, M. Willsey, Z. Tatlock, and N. Polikarpova, "Babble: Learning better abstractions with e-graphs and anti-unification," Proc. ACM Program. Lang., vol. 7, jan 2023.
- [98] R. Tate, M. Stepp, Z. Tatlock, and S. Lerner, "Equality saturation: A new approach to optimization," in *Proceedings of the 36th Annual ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages*, POPL '09, (New York, NY, USA), p. 264–276, Association for Computing Machinery, 2009.
- [99] T. D. Morgan and J. W. Morgan, "Web timing attacks made practical," Black Hat, 2015.

78 REFERENCES

[100] T. Schnitzler, K. Kohls, E. Bitsikas, and C. Pöpper, "Hope of delivery: Extracting user locations from mobile instant messengers," in 30th Annual Network and Distributed System Security Symposium, NDSS 2023, San Diego, California, USA, February 27 - March 3, 2023, The Internet Society, 2023.

- [101] Kaspersky, "The state of cryptojacking in the first three quarters of 2022," 2022.
- [102] Mozilla, "Protections Against Fingerprinting and Cryptocurrency Mining Available in Firefox Nightly and Beta," 2019.
- [103] J. Cabrera-Arteaga, M. Monperrus, T. Toady, and B. Baudry, "Webassembly diversification for malware evasion," *Computers & Security*, vol. 131, p. 103296, 2023.
- [104] P. Kocher, J. Horn, A. Fogh, D. Genkin, D. Gruss, W. Haas, M. Hamburg, M. Lipp, S. Mangard, T. Prescher, M. Schwarz, and Y. Yarom, "Spectre attacks: Exploiting speculative execution," in 2019 IEEE Symposium on Security and Privacy (SP), pp. 1–19, 2019.

${f Part~II}$ Included papers